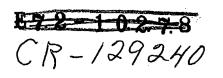
in the interest of early and wide dissemination of Earth Resources Survey Program information and without liability for any use made thereof."



OVERALL EVALUATION OF ERTS IMAGERY FOR CARTOGRAPHIC APPLICATION

NT/5: HC \$3.00

Alden P. Colvocoresses Topographic Division U.S. Geological Survey Washington, D.C. 20242

1 November 1972

Type I Progress Report for Period September 1, 1972 - October 31, 1972

(E72-10278) OVERALL EVALUATION OF ERTS N73-12376
IMAGERY FOR CARTOGRAPHIC APPLICATION
Progress Report, 1 Sep. - 31 Oct. 1972
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Type I Progress Report ERTS-A

a. Title: Overall Evaluation of ERTS Imagery for Cartographic Evaluation

ERTS-A Proposal No.: MMC 233

b. GSFC ID No. of P.I.: IN 014

c. Problems:

This investigation is partly dependent on the results of experiments in thematic mapping, photomapping, map revision and Polar mapping.

These experiments are impeded by a lack of coverage of all test sites. There is also a problem in making good quality enlargements from the extremely dense 70 mm ERTS images.

d. Accomplishments:

A complete set of precision processed images of ERTS from E-1002-18131 (Lake Tahoe) were examined and a quick look report submitted at an ERTS Seminar held at NASA/Goddard on September 29, 1972.

The first widely distributed ERTS cartographic product was produced and printed lithographically. This was a color composite covering Lake Tahoe, Calif.-Nev. It was made from 3 precision processed MSS bands and fitted with a 50 km UTM grid. A 1:500,000 scale enlargement of the Seattle area is presently being compiled from RBV bands. A meeting of the EROS Mapping Requirements Working Group to evaluate ERTS products is planned for December 1972.

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e. Significant scientific results:

As a result of an examination of a set of precision processed images mentioned in itemcdeabove prthe sprecision sprocessor rappears to the morking properly and geometric quality of RBV and MSS precision and RBV bulk imagery is adequate for 1:250,000 scale while the MSS bulk is compatible to 1:1,000,000 scale at best. However, the nongeometric quality of the MSS bulk is good for 1:250,000 scale while the MSS precision is sufficient for 1:500,000 scale. The non geometric quality of the RBV bulk images is good for 1:250,000 to 1:500,000 scale while that of the RBV precision processed images is only rated fair and sufficient for 1:500,000 to 1:1,000,000 scale. Attempts to warp a grid to MSS bulk imagery and thus produce a useable cartographic product are being examined.

f. Published articles and reports:

"Cartographic Applications of ERTS Images" by Dr. Alden P. Colvocoresses presented at ACSM-ASP Fall Technical Convention, Columbus, Ohio, October 1972.

- g. Recommended changes in operations: N/A
- h. Changes in standing order forms: N/A
- i. ERTS Image descriptive forms: NA
- j. Changes in Data Request forms: N/A
- k. DCP status: N/A